Remarks and Arguments

Claims 1-58 have been submitted for examination. Claims 1, 18, 35 and 42 have been amended.

Claims 1-14, 18-31 and 35-55 have been rejected under 35 U.S.C. §102(e) as anticipated by U.S. Patent No. 6,151,331 (Wilson.) The examiner asserts that <u>Wilson</u> discloses the subject matter as claimed.

The present invention relates to discovering a topology of a switch by an initiator device. The initiator device performs this discovery by sending queries to the switch over two separate paths and receiving responses thereto. More specifically, the switch includes a plurality of switch ports to which I/O devices and the initiator device are connected. The initiator device and I/O devices communicate on a first network that is configured by the switch. The initiator device can also communicate with the switch over a separate second network. The initiator device submits a first query over the first network to the switch requesting the addresses of I/O devices that are accessible to the initiator device over the first network. In response to the first query the address of each I/O device is received by the initiator device from the switch. A second query is also submitted over the second network to the switch for information regarding switch ports on the switch. In response to the second query the switch port information is received by the initiator device. The received information is then used by the initiator device to generate the switch topology.

The <u>Wilson</u> reference concerns a mechanism by which a host computer can locate an I/O device (a storage device as disclosed) on a switched network in which the device addresses are dynamically assigned. As disclosed in <u>Wilson</u>, the first step in the process occurs when a storage router 18 uses a discovery method to locate each storage device on the loop 16. Then the router 18 broadcasts a Fibre Channel Address Resolution Protocol (FARP) request to each device that has been located. If the device can respond to the request, it returns its address, otherwise no response is received. The storage router uses responses it receives to build a lookup table of devices and device addresses and flags indicating whether each device will respond to a FARP request or not.

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Later, when a host device 14 wants to communicate with a device connected to the Fibre Channel loop 16, it broadcasts a FARP request on the loop 16. The router 18 receives this request and locates the device to which the request is directed in its lookup table. If the router determines that the device can respond to the request, it does nothing and allows the device to respond. However, if the router determines that the device will not respond, then it responds.

This operation disclosed in Wilson differs considerably from the claimed invention. In particular, in the claimed invention, two requests are made from the initiator device to the switch over two networks and the independent claims have been amended to particularly point out this difference. Claim 1 is exemplary. It recites, in lines 8-9, "submitting a first query from the initiator device over the first network to the switch ..." and, in lines 13-14, "submitting a second query from the initiator device over the second network to the switch ..." The examiner analogizes the host computer 14 or the storage router 18 to the claimed initiator device. However, it is clear that the host 14 makes only a single FARP request through the switch 12 to the loop 16 when it wants to determine the address of a selected storage device.

Similarly, the storage router directs the node discovery requests to the storage devices not the switch. These requests are made over the loop 16. See Wilson, column 4, lines 47-50 and 55-57. Later, the storage router directs a FARP request to each storage device that has been discovered (and stored in the lookup table) over the same loop 16. See Wilson, column 3, line 66 – column 4, line 1. Thus, nothing described in Wilson makes two requests over two networks to the switch 12. Consequently, amended claim 1 patentably distinguishes over the Wilson reference.

Claims 2-14 are dependent, either directly or indirectly on amended claim 1 and incorporate the limitations thereof. Consequently, they distinguish over the cited reference in the same manner as amended claim 1. In addition, these claims recite additional limitations not found in Wilson. For example, claim 6 recites, in lines 2-4, that the second network comprises an Ethernet network, wherein the switch and less than all of the devices are connected to the second network. The examiner points to Wilson as disclosing that the storage router discovers the node name of the I/O devices on the loop and argues that this is equivalent. However, Wilson does not disclose that this

discovery is conducted over any mechanism other than the loop 16 as no other network is described. Thus, claim 6 patentably distinguishes over the Wilson reference.

Similarly, claim 9 recites submitting an additional query on the second network to at least one other initiator device. The examiner analogizes this to the host computer in Wilson submitting a request to the storage router to access a device that is directly connected to the storage router. However, this request is clearly submitted over the first network (the network controlled by the switch) rather than the second network as recited. Therefore, claim 9 patentably distinguishes over the cited invention.

In addition, claim 10 recites that topology information received in response to the additional query to another initiator device is capable of including topology information on I/O devices in different zones implemented by the switch. Similar zone wording is included in claim 16 and 17. Wilson discloses only a single zone implemented by switch 12 and thus cannot disclose discovering topology of additional zones. Therefore, claims 10, 16 and 17 patentably distinguish over the cited Wilson reference.

Claim 18 has been amended in the same manner as claim 1. Therefore, it distinguishes over Wilson in the same manner as amended claim 1. Claims 19-31 are dependent, either directly or indirectly on amended claim 18 and incorporate the limitations thereof. Consequently, they distinguish over the cited reference in the same manner as amended claim 18. Claims 23, 26, 27 and 33-34 contain limitations that correspond to claims 6, 9, 10 and 16-17, respectively. Thus, these claims also distinguish over Wilson in the same manner as those claims.
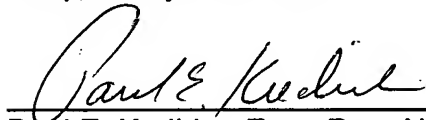
Claim 35 has been amended in the same manner as claim 1. Therefore, it distinguishes over Wilson in the same manner as amended claim 1. Claims 36-41 are dependent, either directly or indirectly on amended claim 35 and incorporate the limitations thereof. Consequently, they distinguish over the cited reference in the same manner as amended claim 35. Claims 38 and 40-41 contain limitations that correspond to claims 9 and 16-17, respectively. Thus, these claims also distinguish over Wilson in the same manner as those claims.

Claim 42 has been amended in the same manner as claim 1. Therefore, it distinguishes over Wilson in the same manner as amended claim 1. Claims 43-55 are dependent, either directly or indirectly on amended claim 42 and incorporate the

limitations thereof. Consequently, they distinguish over the cited reference in the same manner as amended claim 42. Claims 47, 50, 51 and 57-58 contain limitations that correspond to claims 6, 9, 10 and 16-17, respectively. Thus, these claims also distinguish over <u>Wilson</u> in the same manner as those claims.

In light of the forgoing amendments and remarks, this application is now believed in condition for allowance and a notice of allowance is earnestly solicited. If the examiner has any further questions regarding this amendment, he is invited to call applicants' attorney at the number listed below. The examiner is hereby authorized to charge any fees or direct any payment under 37 C.F.R. 1.17, 1.16 to Deposit Account number 02-3038.

Respectfully submitted

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